A Treatment Protocol for Autistic Spectrum Disorders (ASD)

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Lecture presented Aug. 10&11, 2006 Park City, Utah

The 6 A's

- In the German literature and my own experience it is well established that 6 illnesses have the same underlying causes and respond to similar treatment strategies:
  - Autism
  - Asperger's
  - Allergies
  - Atopic skin diseases
  - Asthma
  - ADHD
  - seizure Disorders

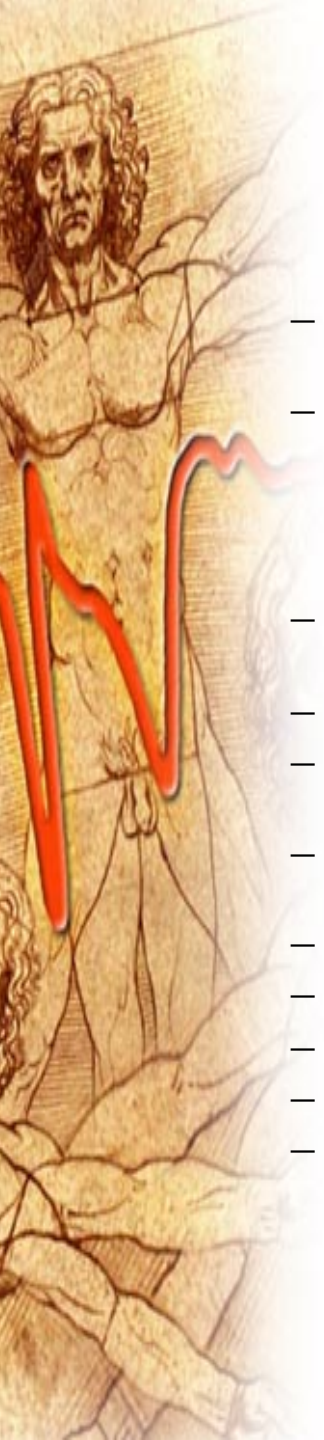
- The treatment suggestions outlined in this paper can not only be applied to autism but to a large degree to the other 6 illnesses

- Environmental and genetic factors seem to determine how a child adapts to the toxic insult and which one of these illnesses develops

Common physical findings in ASD

(all consistent with expected and reported findings of severe mercury toxicity)

- Blocked “mirror-neurons” in frontal cortex (inability to respond to mom’s feelings, love, gaze, smile)
- Inflammatory Bowel Disease
- Increased size of frontal lobe and white matter
- Cerebellar atrophy (reduced number of Purkinje cells)
- Increased “neuronal packing” in cortex
- Cytoarchitectural changes in subcortical structures
- Micro-and astroglia activation with leaky blood brain barrier
- Altered glutamate receptors
- Hippocampal damage
- Autoimmunity (ethyl-mercury induced)
- Elevation of inflammatory cytokines in brain and CSF: MCP-1, IFNgamma
- IgA deficiency and increased IgE
- Lymphopenia
- T-cell abnormalities
- Abnormal NK cell function
- Anti-Myelin Basic Protein Antibodies 70% (Singh 1998)
- Anti-Neuron-Axon Filament Protein Antibodies 57%



Common energetic findings in ASD

- Energy body/soul displaced into the surrounding area near the physical body (huge energy field)
- Fritz Albert Popp PhD: the bio-photonfield surrounding the physical body is the central regulating agency of all metabolic processes. The signals are received and transmitted via extra-and intracellular tubulin microfilaments (which is destroyed at low doses by mercury)
- Enhanced energetic perception (child knows what you are doing behind their back)
- Enhanced capability for telepathic communication
- Perceptions and communications cannot be received in, and down-stepped into, the physical body (function of tubulin)
- Very responsive to properly used Energy Medicine applications
- Switching and blocked regulation
- Hyperactivity in most meridian systems
- Autonomic dysfunction
- Severe 2nd and 6th Chakra abnormalities
- Because of extraordinary energetic sensitivity the ASD child becomes recipient of unhealed transgenerational family issues (this perpetuates the illness)

Common Biochemical Findings in ASD

James et al. 2005

Table 1	Control Children n=33	Autistic Children n=20	p value
Methionine (µmol/L)	30.6 ± 6.5	19.3 ± 9.7	0.001
SAM (nmol/L)	90.0 ± 16.2	75.8 ± 16.2	0.01
SAH (nmol/L)	20.1 ± 4.3	26.1 ± 5.4	0.001
Homocysteine (µmol/L)	6.3 ± 1.2	5.4 ± 0.9	0.01
Adenosine (µmol/L)	0.28 ± 0.16	0.39 ± 0.19	0.05
Cysteine (µmol/L)	210 ± 18.5	163 ± 14.6	0.001
Total glutathione (µmol/L)	7.9 ± 1.8	4.1 ± 0.5	0.001
Oxidized Glutathione (nmol/L)	0.3 ± 0.1	0.55 ± 0.2	0.001
GSH/GSSG Ratio	25.5 ± 8.9	8.6 ± 3.5	0.001

The single underlying cause of autism

- Autism is a new man made condition – and therefore avoidable in the future
- Occurrence and severity of autism is directly related to toxin exposure in a child with inadequate genes (those that code for detoxification enzymes, methylation, etc.)
- Autism is not multifactorial: CNS-mercury plays the key single role in causing autism
- Most biochemical, developmental, medical and behavioral findings in autism are secondary to mercury toxicity

Joachim Mutter: **Mercury and Autism: Accelerating Evidence**. Neuroendocrinol Lett 2005; 26 (5): 439-446, Institute for Environmental Medicine and Hospital Epidemiology, University Hospital Freiburg, Germany.

- Collaborated with me for many years and works at my Alma Mater in Freiburg, Germany.
- E-mail: joachim.mutter@uniklinik-freiburg.de

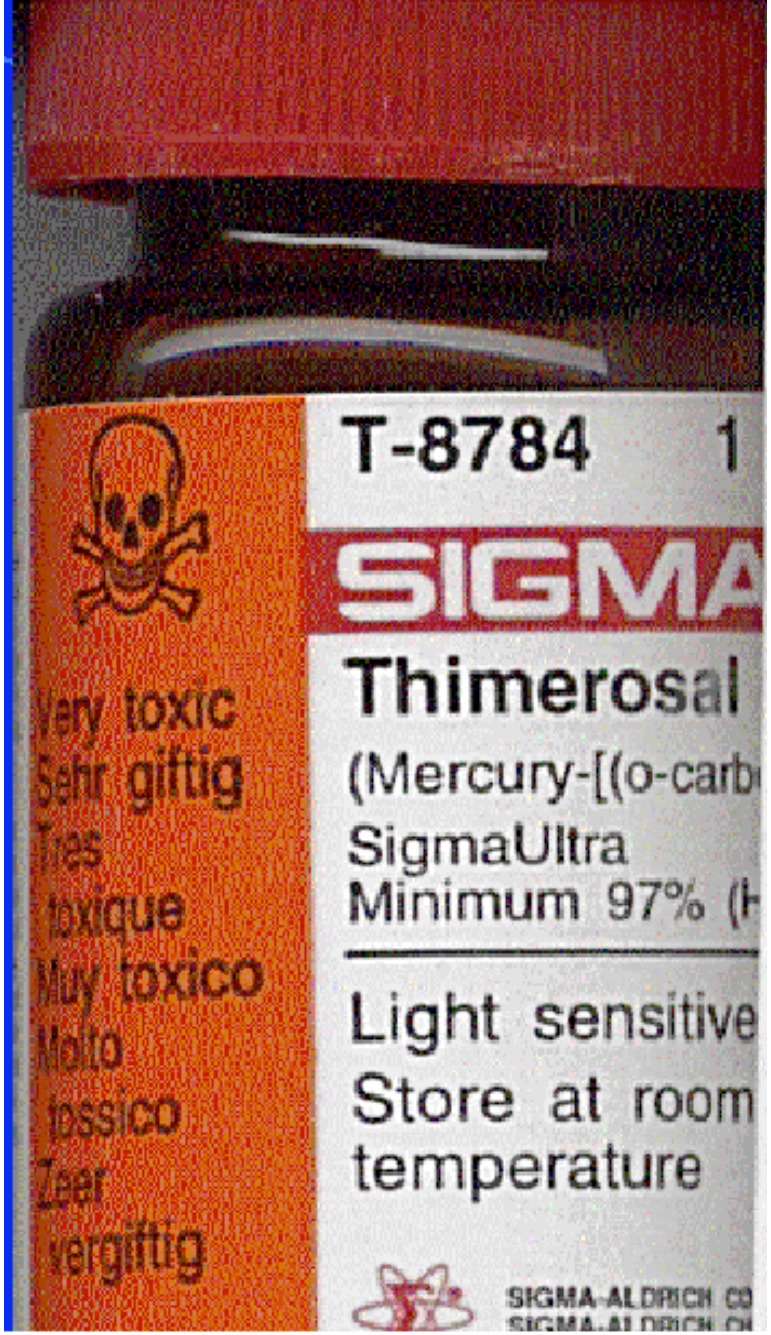
- 3 main sources of mercury toxicity…

Three main sources of mercury toxicity:

1. **Thimerosal** (ethyl-mercury thiosalicilate) from vaccines, Rh-prevention (Rhogam), other medications

   - Autism and ASD is absent in the Amish community where children are not vaccinated. As soon as they do, they also become ill

   - Beware of the "Bill and Melinda Gates Foundation"
     - Forced vaccinations with the help of GAVI (Global Alliance for Vaccines and immunization) onto African countries
     - Amount of thimerosal, which was known to cause trouble in US children and outlawed in the US in 1999, was doubled in the vaccines for Africa pushed by Gates
     - Since introduction of mass vaccine program in China an estimated 1.5 million children became ill with ASD since 1999.
     - An unknown number of children (in the hundredthousands) in Nigeria alone developed ASD after forced vaccinations pushed by Gates. There was no ASD in Nigeria before.
     - Awareness of vaccine-ASD connection in Nigeria causing imprisonment and worse
     - Corporate strategies involving other countries


T-8784 1
SIGMA
Thimerosal
(Mercury-[(o-carb
SigmaUltra
Minimum 97% (H
Light sensitive
Store at room
temperature
Very toxic
Sehr giftig
Très
toxique
Muy tóxico
Molto
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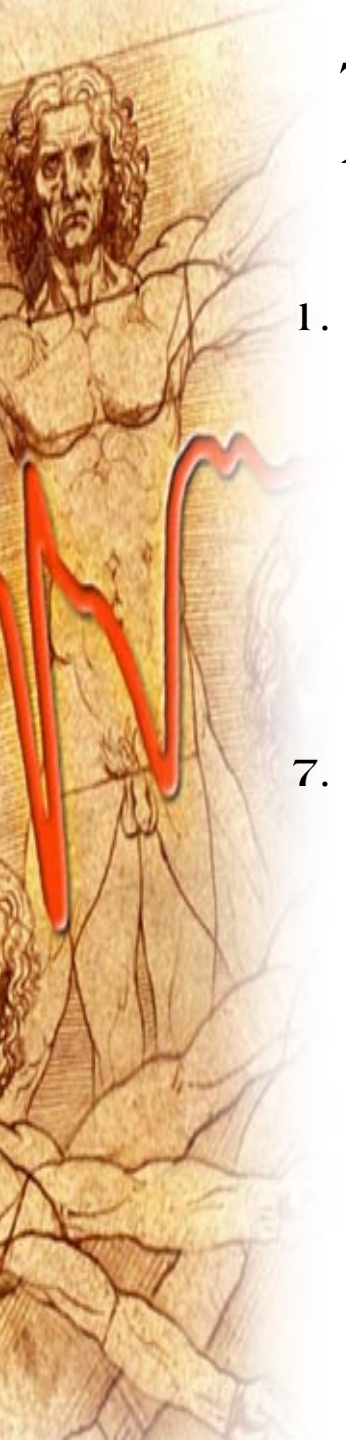
Zeer
vergiftig
SIGMA-ALDRICH CO



Three main sources of mercury toxicity:

1. **Environmental** (Environmental mercury release, special education rates and autism disorder: an ecological study of Texas. F.Palmer et al., Health and Place, Vol 12, Issue 2, June 2006, pp 203-209) "on average, for each 1000 lb of environmentally released mercury, there was….a 61% increase in the rate of autism"

   1977-2002 increase in environmental Hg 3–5 fold (UNEP,2002)

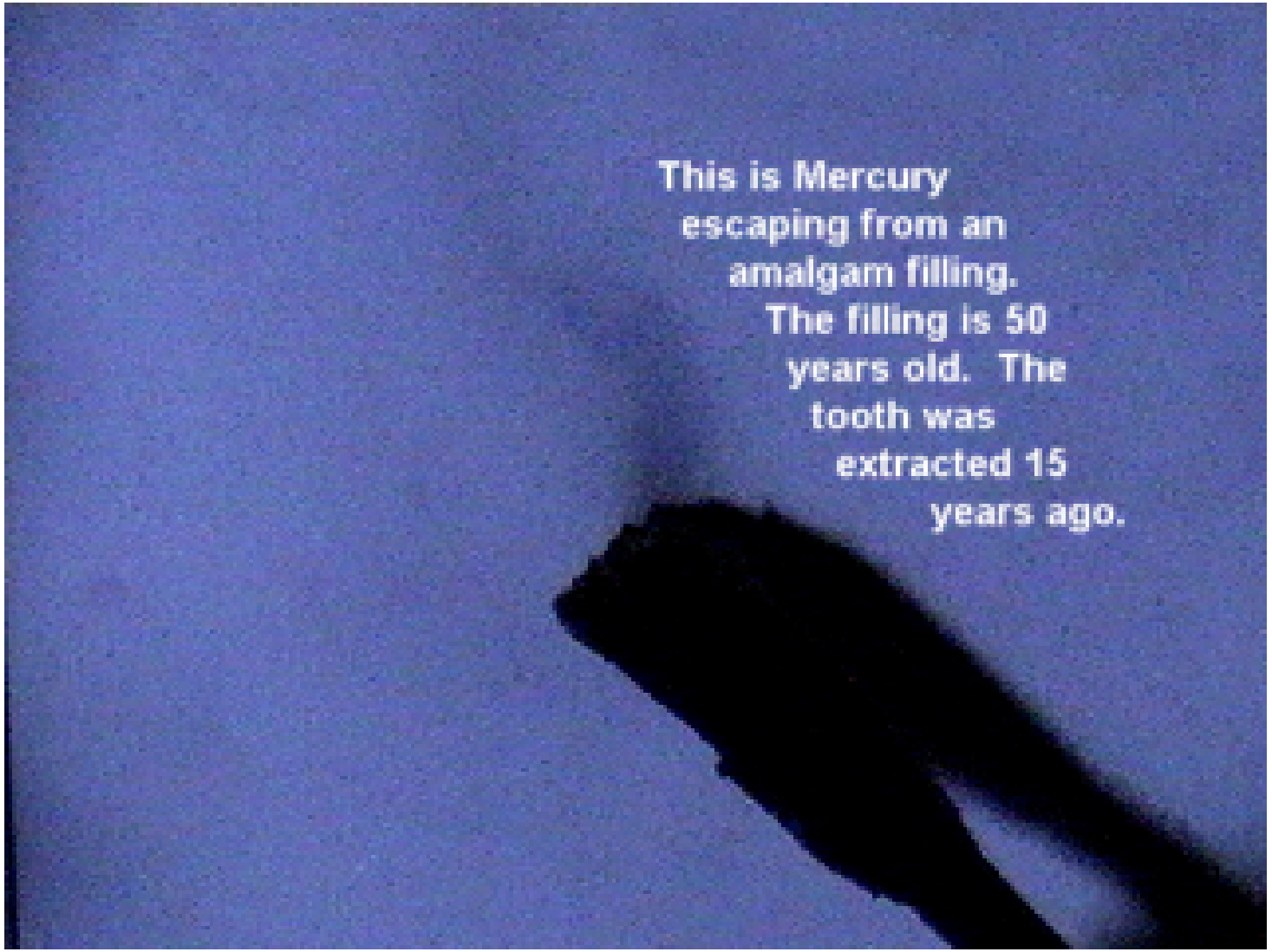
   1790-1990 increase of environmental Hg 20 fold, in fish at least 1000 fold (Bender 2002 Mercury Policy Project,USA)

7. **Mother** (2/3rds of body burden passed on to child during gestation and breastfeeding) . 70-80 % of mother's Hg burden from amalgam fillings

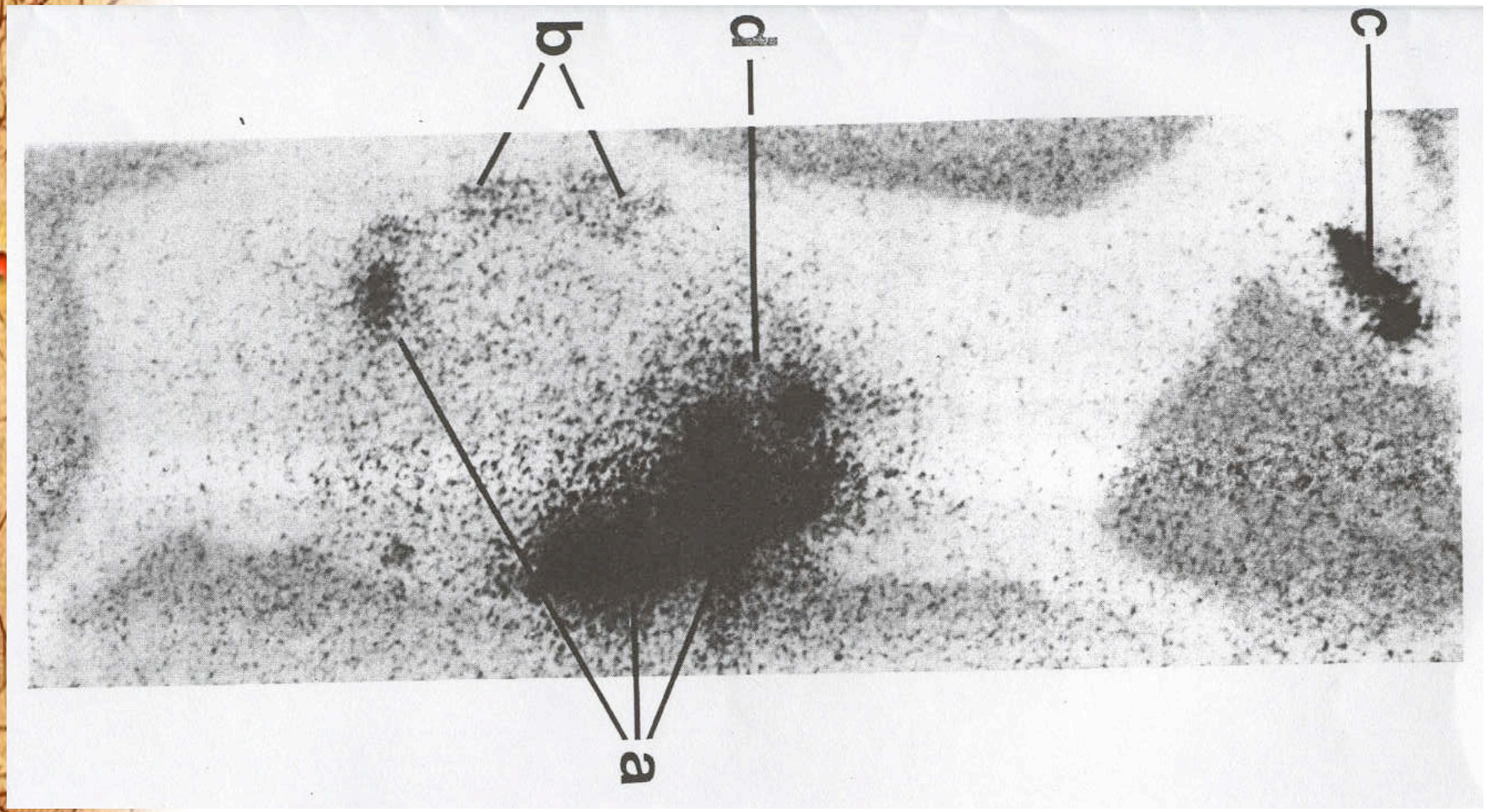
   Stoz et al 1995: Hg in umbilical chord vein 0.2-5ng/ml

   Jedrychowski et al 2005: Neurodevelopmental problems in children, when Hg in chord blood over 0.8 ng/ml

Mercury outgases from amalgam fillings for a long,long time. Up to 80% end up in the CNS

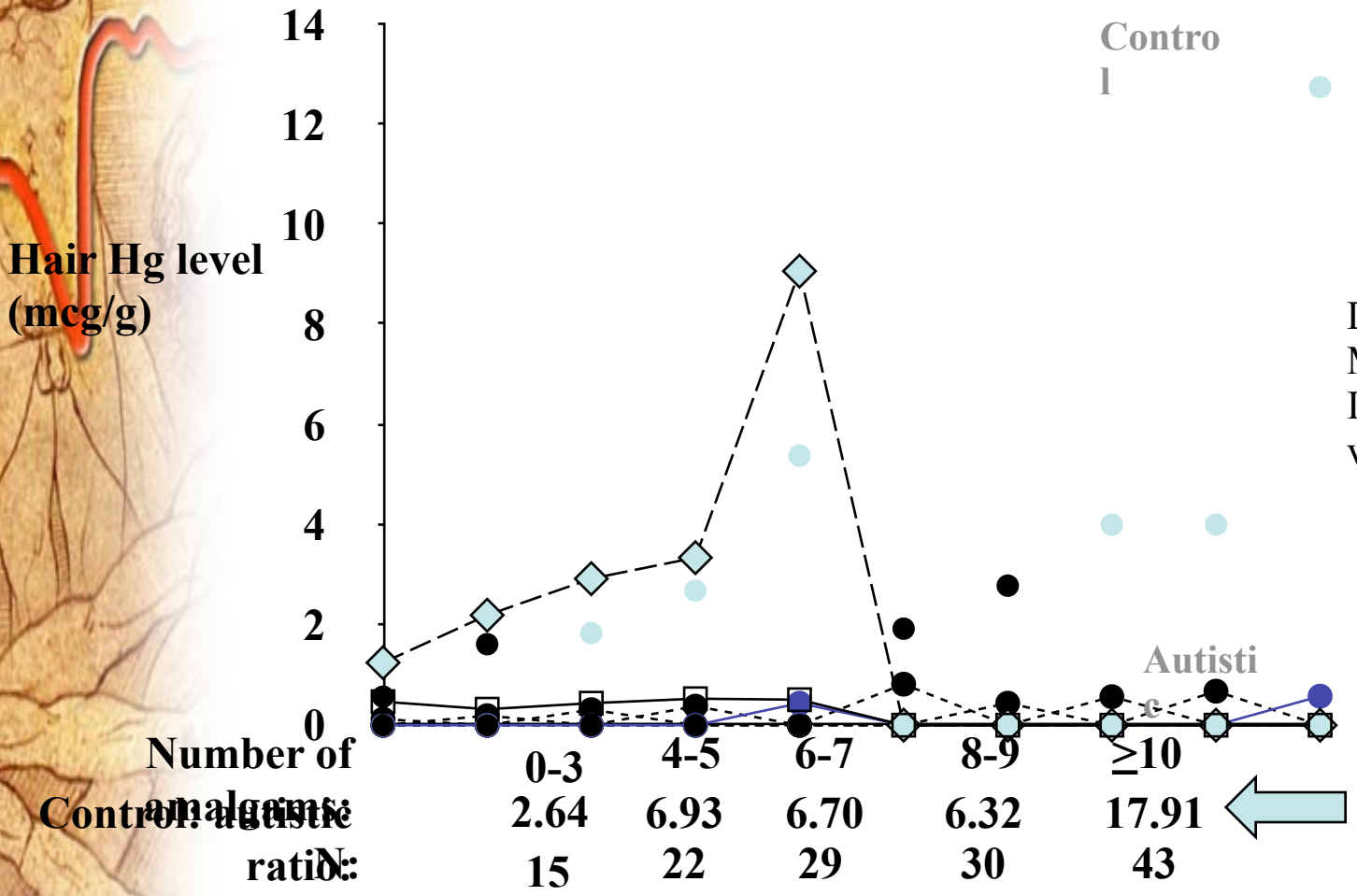


Mercury compartmentalizes in a sheep after placement of several amalgam fillings (Vimy,Lorscheider et al)



Austic children fail to excrete Mercury

Mercury Birth Hair Levels Vs. Amalgam Fillings In Autistic And Control Groups



Data from A. Holmes, M. Blaxill & B. Haley, Int. J. of Toxicology v22, in press, 2003

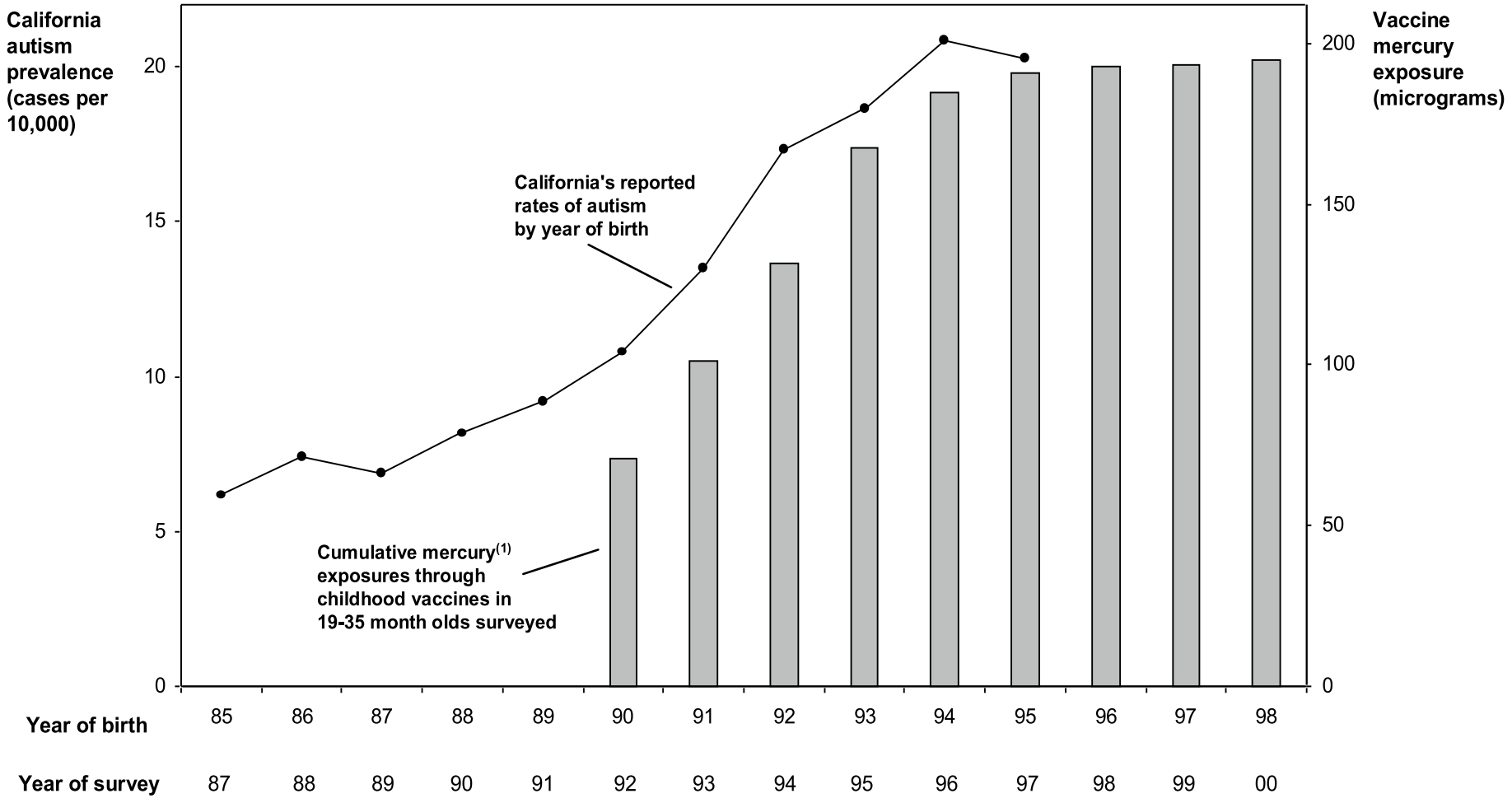
Mol Psychiatry 2004 Sep.;9(9): 833-45
Neurotoxic Effects of Postnatal thimerosal are mouse strain dependent, Horning M, Chian D, Lipkin WI., Jerome L. and Dawn Greene Infectious Disease Laboratory, Dep. Of Epidemiology, Mailman School of Public Health, Columbia University, New York

- Autoimmune propensity influences outcomes in Mice following thimerosal challenges that mimic routine childhood immunizations
- Mice show growth delay
- Reduced locomotion
- Exaggerated response to novelty
- Densely packed hippocampal neurons with altered glutamate receptors and transporters

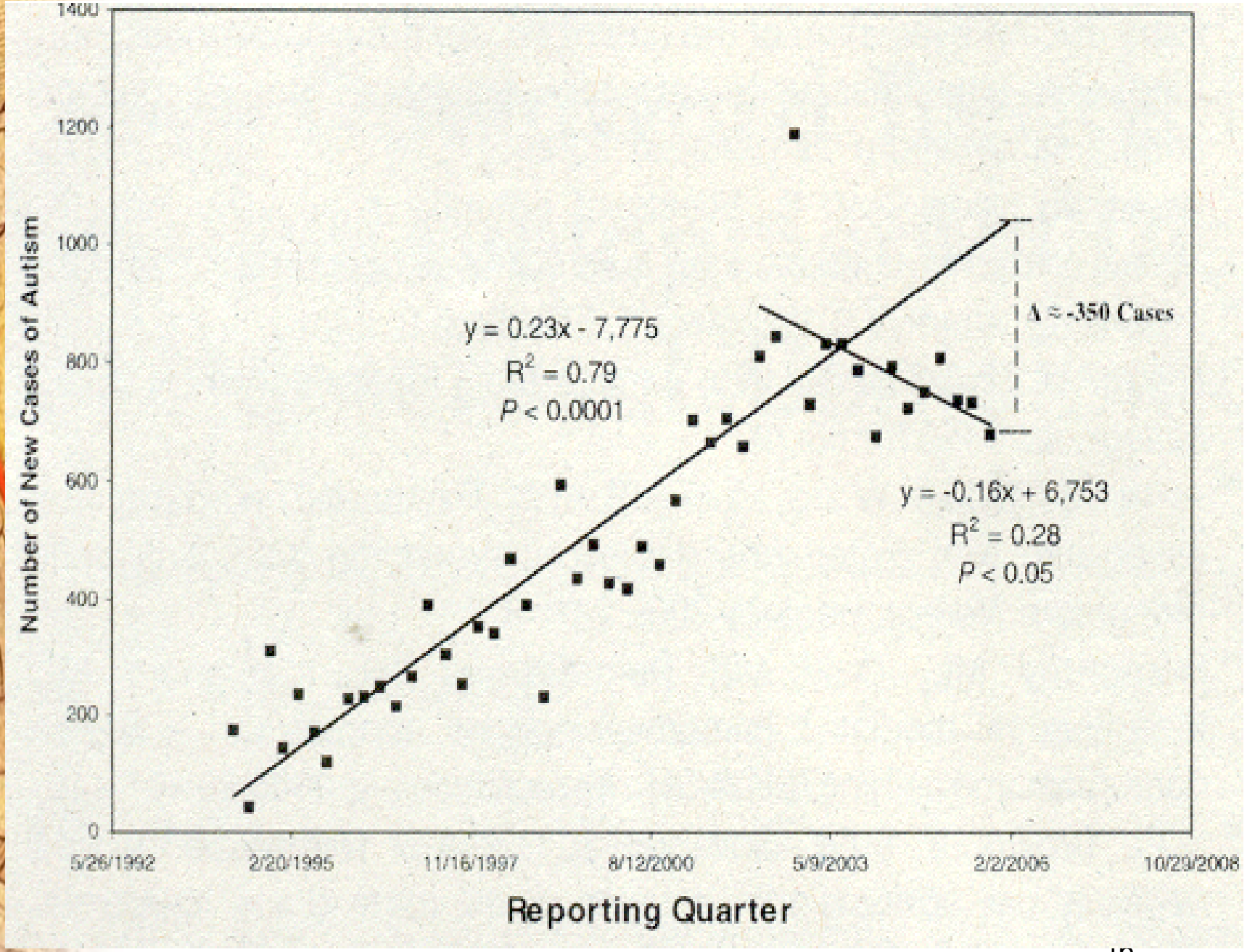
Other recent findings:

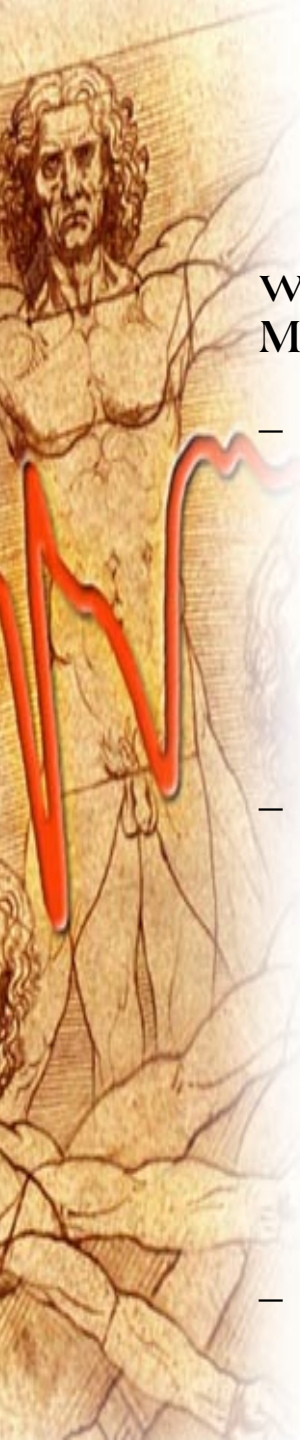
- After the Am. College of Pediatrics recommended a vaccine schedule in 1989 considered by many insane, a sharp raise in new autism cases resulted across the US, not in other western countries that did not follow the US lead. After the college recommended to reduce the amount of thimerosal in the vaccines in 1999, a sharp drop in new autism cases was observed
- There is no autism in the Amish population. There are no vaccinations in the Amish. The only rare cases of autism in the Amish were found in members of the few families that did vaccinate

FIGURE 1: VACCINE MERCURY BURDEN AND AUTISM RISK: UNITED STATES



(1) Includes DPT, haemophilus influenza B and hepatitis B exposures weighted by survey year compliance


Number of New Cases of Autism
1400
1200
1000
800
600
400
200
0
y = 0.23x - 7,775
R2 = 0.79
P < 0.0001
Δ ≈ -350 Cases
y = -0.16x + 6,753
R2 = 0.28
P < 0.05
5/26/1992
2/20/1995
11/16/1997
8/12/2000
5/9/2003
2/2/2006
10/29/2008
Reporting Quarter



Sources of other toxins in the ASD child: It's all your mother's fault

www.EWG.org

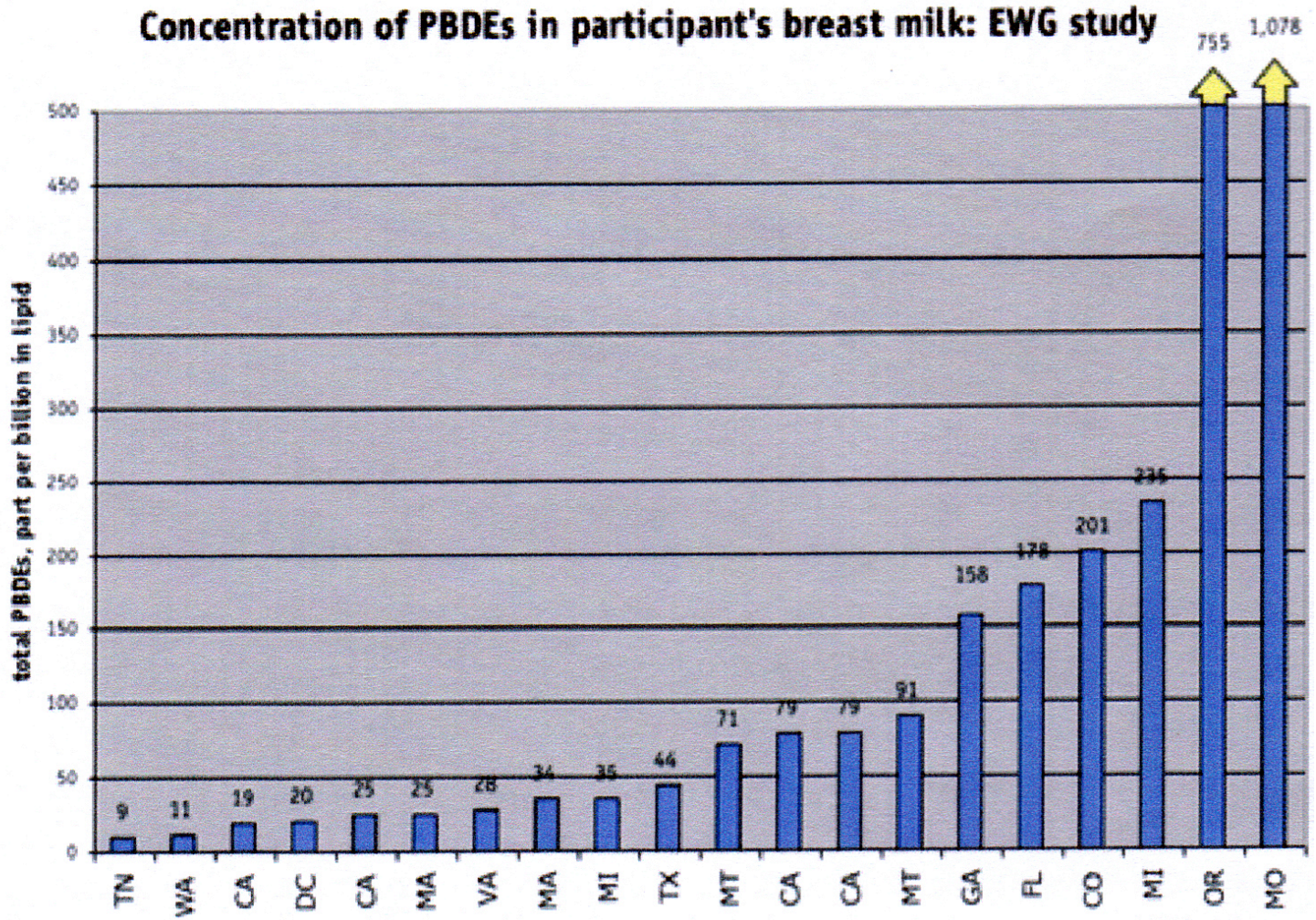
Mothers' Milk: Findings: Levels in U.S. women highest in the world

- Between November 2002 and June 2003, EWG recruited 20 healthy, pregnant women from across the country, all of whom were expecting their first child, to participate in a study of fire retardants in breast milk. Participants collected a breast milk sample within several months of the birth of their child and completed an exposure assessment questionnaire that provided information about their lifestyle and home and work environments. Samples were analyzed by a certified laboratory.

- The lab found PBDEs in every breast milk sample tested — 35 different PBDEs in all. More significantly, our tests found levels higher than those reported previously for U.S. women, including two of the highest levels of PBDEs ever reported in human beings in the world. Levels ranged from 9.5 to 1,078 parts per billion (ppb) in milk fat (lipid), with an average level of 159 ppb, and a median value of 58 ppb. Six of 20 participants had PBDE levels above 100 ppb, with two participants exceeding 700 ppb. The highest PBDE level previously reported in the United States was 580 ppb in maternal blood lipid for a woman in Central Indiana. [45]

- The good news: when we put nursing moms on high doses of BioPure chlorella, most toxins disappeared from the breast milk. All were greatly reduced

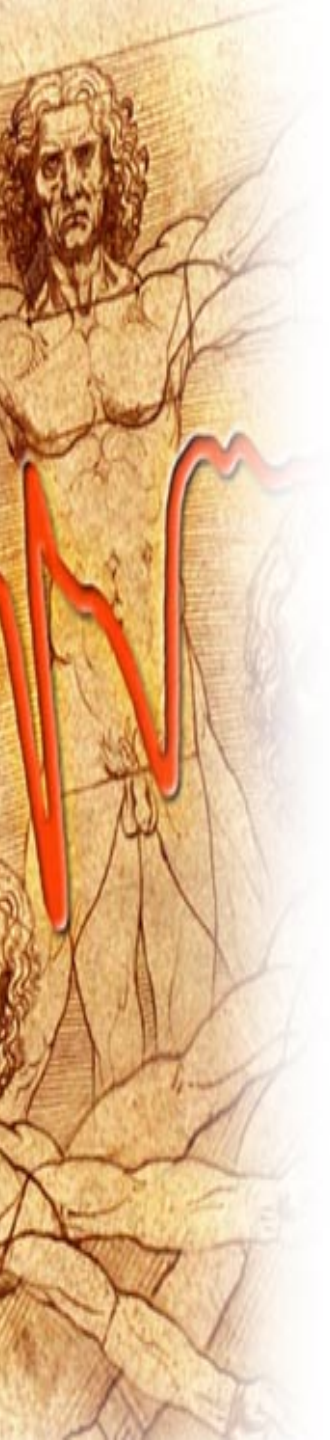
Mother-to-child toxin transfer in breast milk



Synergistic factors

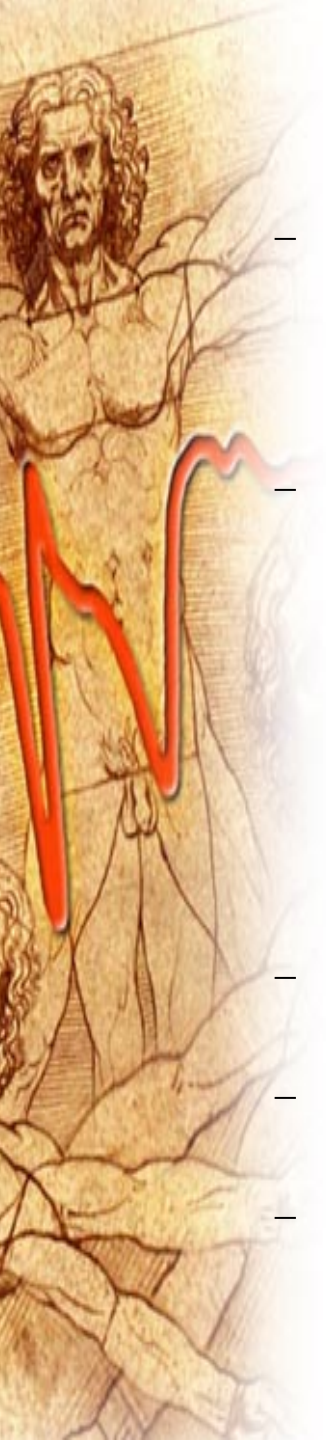
(factors that increase toxic effects of mercury)

- Testosterone
  - Recent testing of male and female ASD clients has revealed abnormally high serum testosterone levels in some children.The recommended use of Lupron to lower the levels has worsened symptoms in some children (this suggests that high testosterone is an adaptive mechanism rather then causative). The Lupron treatment is published by Mark and David Geier. Once every 28 days im injection with depot Lupron. Additional daily injection with small doses to achieve 100 microgram/kg bodyweight/day
  - I use a special preparation of a homeopathic high dilution homaccord of testosterone (BioPure), which lowers testosterone naturally and corrects the unknown underlying reason for the elevation as demonstrated by the frequent improvement in clinical symptoms
  - PC-SPES (several Chinese herbs) has been used successfully to lower testosterone in older male ASD patients.
  - Ground flax seeds (1-2 tbsp/day) in yogurt or cottage cheese are binding hormone metabolites in the gut (including man-made hormone mimics such as some insecticides) preventing re-absorption and should be added to the diet where appropriate
  - Lavender Oil and Tea tree oil have strong anti-androgenic effects and can be used to lower androgens and elevate estrogens. I recommend using a soap and shampoo containing the 2 oils (Henley et al: Prepubertal gynecomastia linked to lavender and tea tree oils N Engl J Md 2007;356:479-85)



Synergistic factors

- Zinc has a well documented synergistic toxic effect with mercury (beware of too much zinc!)
- All other toxic exposures
  - Most researched is lead: an LD 1 of lead given to a group of rats (=the dose that is lethal to 1% of the rats in the group) at the same time with an LD 1 of mercury caused the death of all rats (LD 100). In mercury toxicology 1+1=100
  - Most environmental toxins (recent papers on PBDEs, Phthalates, Bisphenol A – all in furniture, mattress, toys)
  - Electrosmog from cell phone and radio/ TV broadcasting, chordless phones and from electric wiring in home



Genetic polymorphisms and absent genes

- **Glutathione S-transferases** (Type M1 responsible for detoxifying many environmental toxins. Type T1: when gene absent, significant more thimerosal damage).
  - Solution: enhance glutathione-SH production and availability: chlorella in high doses, NDF, alpha lipoic acid 25-50 mg every 6 hours 3 days on, 11 days off, methyl-B12 shots. Consider nasal glutathione drops/spray. Consider TD-glutathione and TD-NAC on alternating non-DMPS days
- 50% thimerosal induced increase in gene polymorphisms of genes regulating **methylation** and related enzymes (COMTor catechol-O-methyl transferase= enzyme responsible for breaking down unneeded neurotransmitters, MTHFR or methylene tetrahydrofolate reductase, MTRR or methionine synthase reductase). Consequence of reduced methylation capacity: reduced DNA methylation, altered activity and function of proteins, altered neurotransmitter function, reduced synthesis of membrane-phosphatidyl-choline, reduced glutathion levels
  - Solution: give BioPure Phospholipid Exchange ½ tbsp/day, use methylated B 12 (chlorella has highest amount found in nature) and methylated folic acid or folinic acid (there is need for hydroxyl-B12 and folic acid as well), adjust diet frequently using ART testing. Our homeopathic program is handling this issue beautifully (see below)
- **Sulfation** genes (i.e: transsulfuration pathway depressed in ASD: low homocysteine, cysteine, methionine and glutathione)
  - Solution: use homeopathic sulfur (see below)
- **Acetylation** genes
  - Solution: use homeopathic Heel Ubiquinon (has coenzyme A for trans-acetylation)
- Enzymes of **cytochrome p450** pathway
  - Solution: use homeopathic “Hepar comp” (see below)

GENOVATIONS™

PHASE II Detoxification: Conjugation of Toxins and Elimination

In Phase II detoxification, large water-soluble molecules are added to toxins, usually at the reactive site formed by Phase I reactions. After Phase II modifications, the body is able to eliminate the transformed toxins in the urine or the feces (through the bile).

Methylation

(COMT SNP) higher risk for depression, bipolar disorder, ADHD and alcoholism.

Result	Gene	SNP Location	Internet Information	Affects
- -	COMT	V158M	www.genovations.com/gdv158m	Liver/Gut

Your Results: Catechol-O-methyl transferase is the enzyme primarily responsible for breaking down the neurotransmitters dopamine, epinephrine, and norepinephrine.

Acetylation (N-acetyl transferase)

(NAT SNP) both slow and rapid acetylators are at increased risk for developing lung, colon, bladder, or head & neck cancer.

SLOW METABOLIZER POLYMORPHISM

Result	Gene	SNP Location	Internet Information	Affects
- -	NAT1	R64W	www.genovations.com/gdr64w	All Cells
- -	NAT1	R187Q	www.genovations.com/gdr187q	Liver/Gut
- -	NAT2	I114T	www.genovations.com/gdi114t	Liver/Gut
+ -	NAT2	R197Q	www.genovations.com/gdr197q	Liver/Gut
- -	NAT2	G286E	www.genovations.com/gdg286e	Liver/Gut
- -	NAT2	R64Q	www.genovations.com/gdr64q	Liver/Gut
FAST METABOLIZER POLYMORPHISM				
- -	NAT2	K268R	www.genovations.com/gdk268r	Liver/Gut

Your Results: N-acetyl Transferase detoxifies many environmental toxins, including tobacco smoke and exhaust fumes. Polymorphisms can result in slower than normal or faster than normal addition of an acetyl group to these toxins. Slow acetylators have a build up of toxins in the system and rapid acetylators add acetyl groups so rapidly that they make mistakes in the process. Both slow and rapid acetylators are at increased risk for toxic overload if they are exposed to environmental toxins. If the toxin exposure is reduced, the risk is reduced.

Glutathione Conjugation (Glutathione s-transferase)

(GST SNP) The GST isoforms (M1, P1, and T1) are more or less prevalent in various tissues; all catalyze the conjugation of electrophilic compounds with glutathione. Defects in GST activity can contribute to fatigue syndromes, and to various cancers throughout the body.

Result	Gene	Location	Internet Information	Affects
NULL	GSTM1	1p13.3	www.genovations.com/gdgstm1	Liver/Kidney
+ -	GSTP1	I104V	www.genovations.com/gdgstp1	Brain/Skin
- -	GSTP1	A113V	www.genovations.com/gda113v	Brain/Skin

Your Results: Glutathione-S-transferase detoxifies many water-soluble environmental toxins, including many solvents, herbicides, fungicides, lipid peroxides, and heavy metals (e.g., mercury, cadmium, and lead). The various forms of GST work together to eliminate toxins. Decreased glutathione conjugation capacity may increase toxic burden and increase oxidative stress.

Oxidative Protection

(SOD SNP) SOD1 is present in the cytosol; SOD2 is present in the mitochondria. Changes in the SOD enzyme are associated with changes in risk for neurodegenerative disorders like ALS.

Result	Gene	SNP Location	Internet Information	Affects
- -	SOD1	G93A	www.genovations.com/gdg93a	Cytosol
- -	SOD1	A4V	www.genovations.com/gda4v	Cytosol
+ -	SOD2	A16V	www.genovations.com/gda16v	Mitochondria

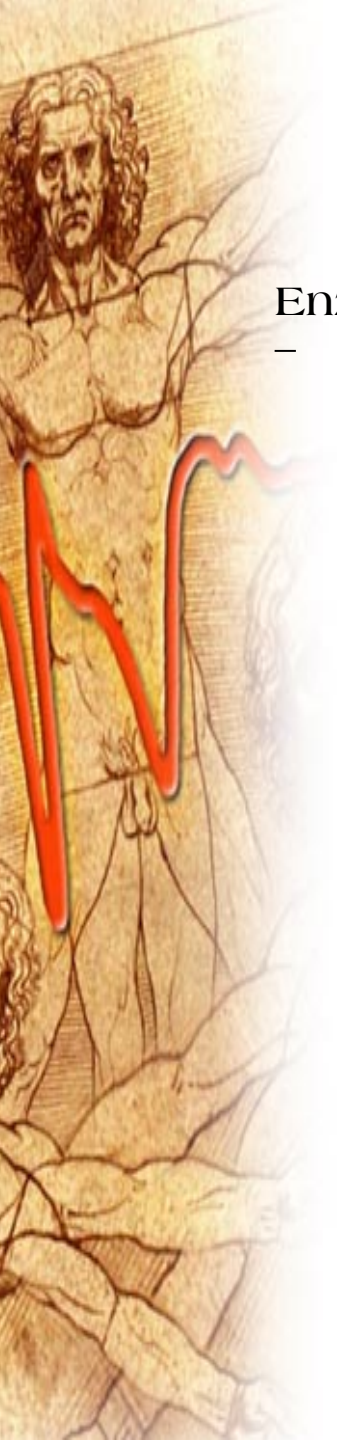
Your Results: Superoxide Dismutase is an enzyme that protects cells from increased oxidative stress and free radical damage to cell structures like membranes, mitochondria, DNA, and proteins.

Key

- -	Neither chromosome carries the genetic variation.	Homozygous negative or wild type
+ -	One chromosome (of two) carries the genetic variation.	Heterozygous positive
++	Both chromosomes carry the genetic variation.	Homozygous positive

NR / NULL / IND See commentary

(You inherit one chromosome from each parent)



Damages caused by Hg injury in ASD children

Enzymes, cell wall receptors, barriers and neurons

- No researcher ever found any enzyme system in the body that has not been damaged by mercury. We have about 25,000 genes carrying the building plan for all of our enzyme systems. Together with epigenomic mechanisms each gene controls the manufacture of about 1,000 different gene variations.

Some outcomes of mercury induced damage:

- Whatever enzyme or system any particular researcher has ever looked at, there was Hg-caused damage. Much of it is reversible for quite some time
- Damaged **blood brain barrier** (astrocytes) with secondary toxic insults
- **Defective gut barrier** (leaky gut) with rapid food allergy development
- Developmental delay
- Changes in "**mirror-neurons**" of frontal cortex and limbic system
- Lack of pruning of non-serving dendritic connections
- **Neurotransmitter** dysfunction
- Maladaptation of every system(ie: poor nutritional intake)
- **Blocks PPAR** (peroxysome proliferators activator receptor): peroxysomes are cell organelles; they are the "liver" of the cell, responsible both for neutralizing toxic substances and for producing the special thing each cell is about: hormones in the hormone glands, bile in the liver cells, enzymes in the pancreas cells, etc. Recently the drug ACTOS has been used in ASD to increase the amount of peroxysomes produced in the cell. It has been overlooked, that chlorophyll (highest in chlorella) also induces the PPAR very effectively without the high cost and side effects of the medical drug.

Damages caused by Hg injury in ASD children (cont.)

Immune system

The lack of central intelligent control of the immune system and the damage to aspects of the immune system itself leads to:

- defective vigilance and surveillance
- failure to recognize self vs. other (mercury induces autoimmunity www.MELISA.org)
- Reduced NK cell activity and mobility
- inadequate response to invading microbes
- failure to recognize microbial molecular mimicry
- many other aspects of immune incompetence
- this in turn leads to invasion of the system by opportunistic microbes and inability to respond to vaccine induced microbes appropriately

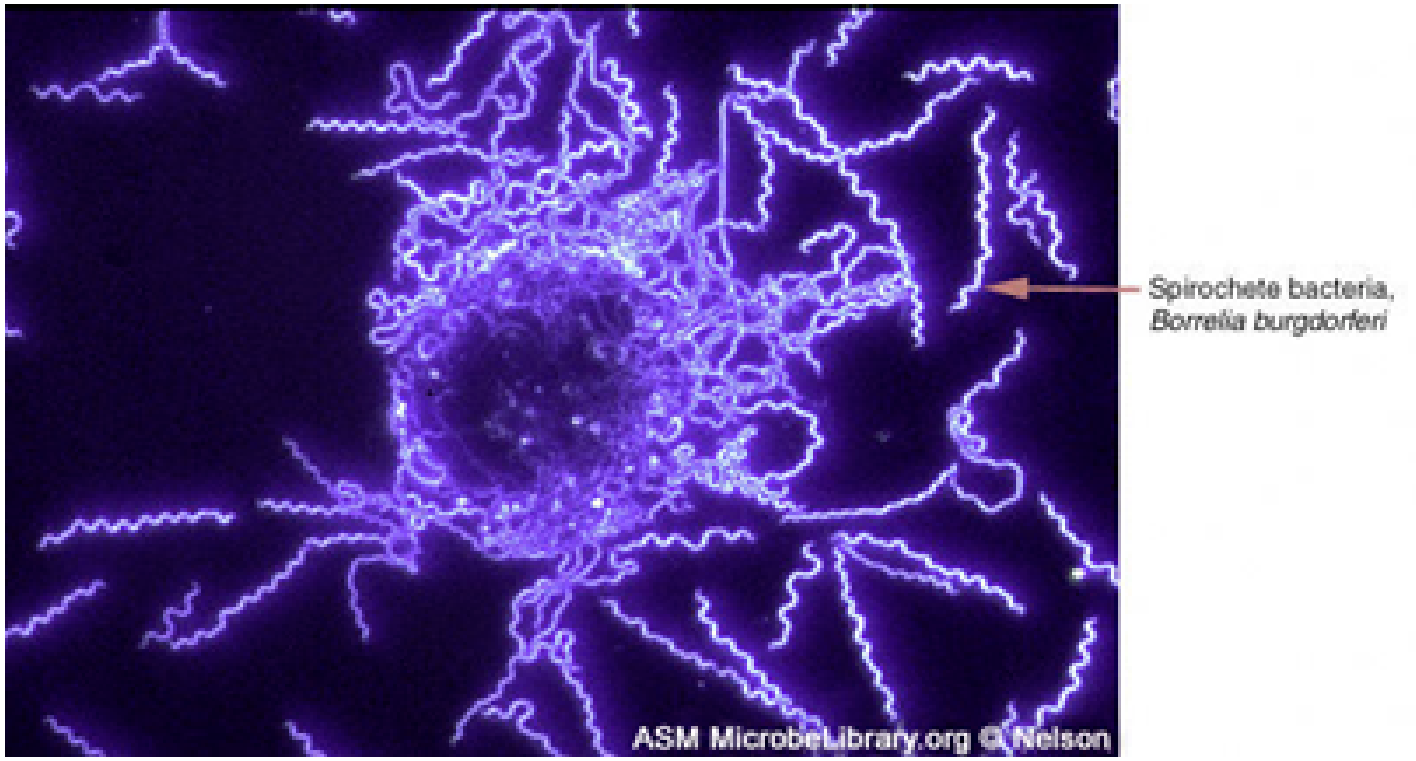
Most common opportunistic infections in ASD:

- Measles virus persistent in the intestinal tract
- Borna viruses (responsible for psychiatric symptoms)
- Giardia and amoebas
- Roundworm, threadworms and tapeworms
- Herpes viruses
- Strep infections and consequences (chorea minor)
- Borrelia burgdorferi and co-infections (out of 8 recently tested children we found Bb IG-M positive in 7 with the Western Blot test)
- Molds and fungi
- Mycoplasma

Helpful tests: Immunosciences (310- 657 1077)

- Premier Autism Panel (measles, strep, viruses, Hg markers)
- Multi-peptide ELISA test for Borrelia and co-infections
- Mold Panel

Borrelia Burgdorferi Infections are common in ASD



Morphology of Borrelia burgdorferi. Dark field image © Jeffrey Nelson, Rush University, Chicago, Illinois and The MicrobeLibrary

Borna Disease Virus Infection, a Human Mental Health Risk

Liv Bode & Hans Ludwig

Project Bornavirus Infections, Robert Koch Institute, 13353 Berlin, and Institute of Virology, Free University of Berlin, 14195 Berlin Germany

Clinical Microbiology Reviews, July 2003,p. 534-545

Volume 16, No 3

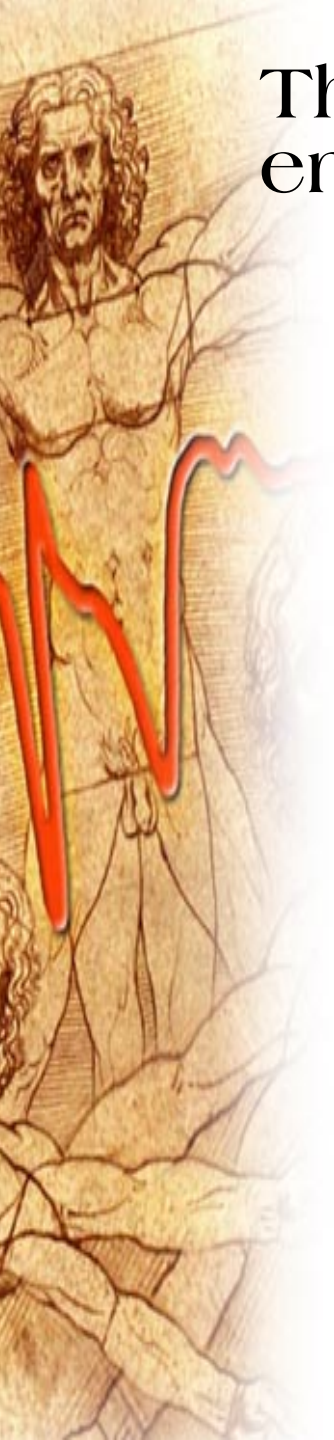
0893-8512/03/508.00+0 DOI: 1128/CMR. 16.3.534-545.2003

American Society for Microbiology

The relationship between mercury and microbes

- Microbial involvement is compartment specific: those areas contaminated with mercury are most immune compromised (absent immune surveillance in these areas) and become ideal breeding places for invading microbes. Compartmentalized Herpes viruses are known to be responsible for seizure foci in the brain in ASD children
- Trying to eliminate the opportunistic microbes before reaching a reasonable degree of toxin elimination in the involved area is not possible
- Antibiotic, nutrient and herbal uptake in a toxin contaminated area is only minimal and will ultimately not succeed.
- Most important long term strategy: decontaminate the most crucial areas in the CNS before attempting major antimicrobial strategy

There is no cure of autism without eliminating the different forms
of mercury from most body compartments



The relationship of unresolved psycho-emotional issues and mercury toxicity

- It is known that Hg deposits are very body compartment specific: in one person it may deposit in the limbic system, in another in the joints or fascia, in another in the kidneys, etc.
- We found that tissues that have been traumatized become deposition places
- We also found that organs and tissues that hold unresolved emotions become the site of mercury contamination
- The Klinghardt axiom (see later) expresses the mathematical relationship between toxins, microbes and unresolved psycho-emotional issues

Is it not enough to eliminate the mercury?

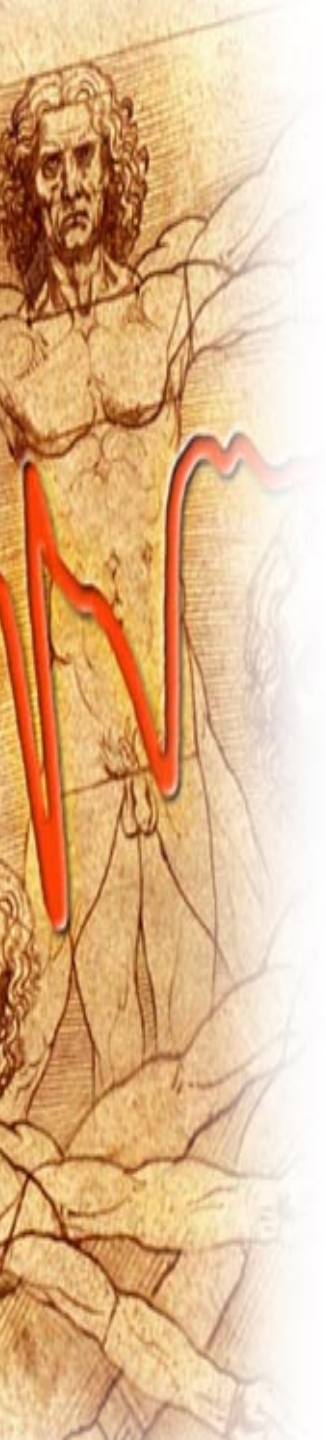
Mercury is the match that ignited the forest fire (multiple biochemical aberrations). It is not enough to extinguish the match if you want to stop the forest fire – once it is burning. A lot more action on different fronts is needed.

- Elimination of all synergistic toxins
- Recognition and activation of defective enzyme systems
- Identifying and treating the 7 perpetuating factors:
  1. food allergies
  1. systemic family issues and early psychological/emotional trauma
  2. ongoing toxin exposure (mold, carpet floors, etc)
  3. unhealed focal areas or interference fields: umbilical scar, circumcision scar, head trauma from birth, chronic intestinal inflammation, tonsil infection
  4. geopathically disturbed sleeping location and electro-smog
  5. defective dentition and facial development of head/neck/jaw structure
  6. persistent chronic stealth infection

Klinghardt Autism Protocol

7 steps:

1. Create a non-toxic home and a safe sleeping location
2. Create a safe ancestral/family environment
3. Provide correct neuro-sensory input
4. Get the diet as right and ideal as possible and add concentrated nutrients (supplementation)
5. Decontaminate: identify and decontaminate compartmentalized mercury, environmental, myco- and other toxins
6. Treat: identify and treat opportunistic infections
7. Restore damaged nervous system, immune system and gastrointestinal tract



1. The non toxic home: what's the problem?

- We found that most US children grow up in homes that are toxic or electromagnetically contaminated
- The US is a leader in sacrificing generations of its own children in the name of corporate wealth and health: in well informed circles it is now known that only one in 10 children is medically (asthma, obesity, fatigue), neurologically (hyperactivity, dyslexia, ASD, etc.) and psychologically (depression, socially inapt, etc.) healthy at age 6 (entry into public school system). The numbers have increased exponentially in recent years. In Germany it is one in 4 children who are still healthy at that age. Recent literature review showed that the incidence of ASD had increased from 0.4 children pr 1000 in 1985 to 1 in 150 children in 2000 with the highest number (nearly 1 in 100) in New Jersey.
- In adults present with loss of: zest, short term memory, creativity, sex drive and potency. Also: insomnia, fatigue, dulling of the senses. Dramatic increase of neurological and psychiatric illness

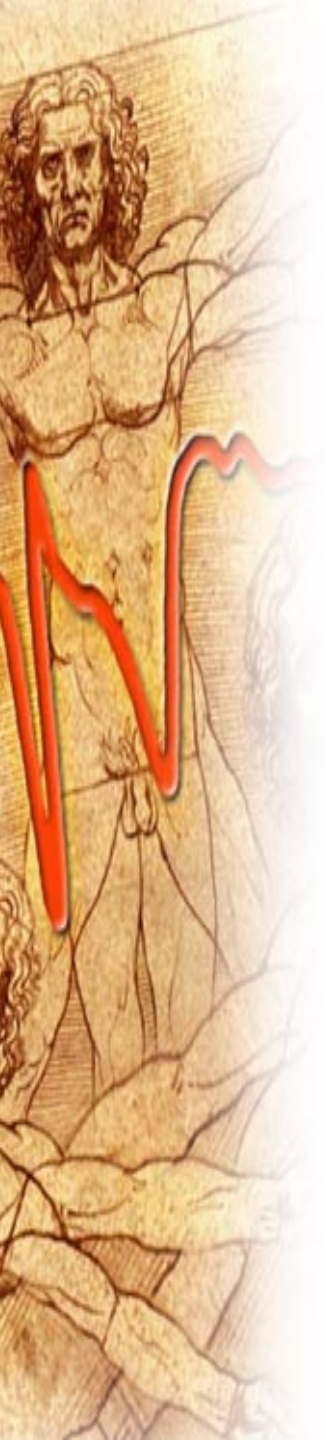
- Our own findings relate over 90% of these illnesses to the synergistic effect of FM, low frequency and microwave radiation and the interaction with mold/yeast, heavy metal toxicity and chronic bacterial infections (Lyme, strep, mycoplasma, chlamydia)

1. EMF: Main sources of pathogenic radiation (EMR)

Low frequency magnetic and electric fields

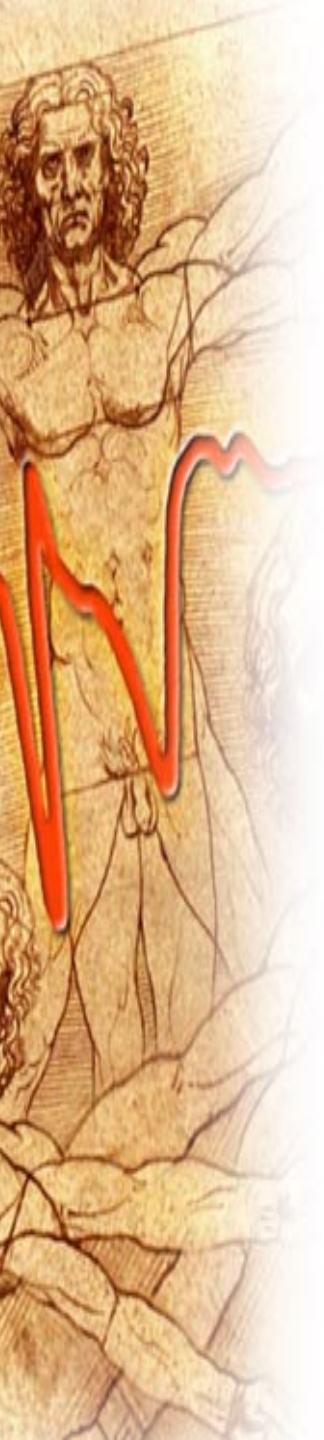
- Electric household appliances (Razors, hairdryers, etc)
- Fluorescent lighting (separates + and – wiring)
- Lamp or alarm-clock on nightstand (if plug the wrong way and ungrounded)
- Electric wiring in home
- Near-by powerline
- Laptop computer
- Wrist watch
- Switched-off cell phone in pocket

Known medical effects: decreases pineal function with decreased melatonin production, opens blood brain barrier, increased leukemia and cancer rates, brain fog, synergistic effect with all other types of radiation



1. EMF: pulsed EMF with sharp pulse rise (10- 100 Hz)

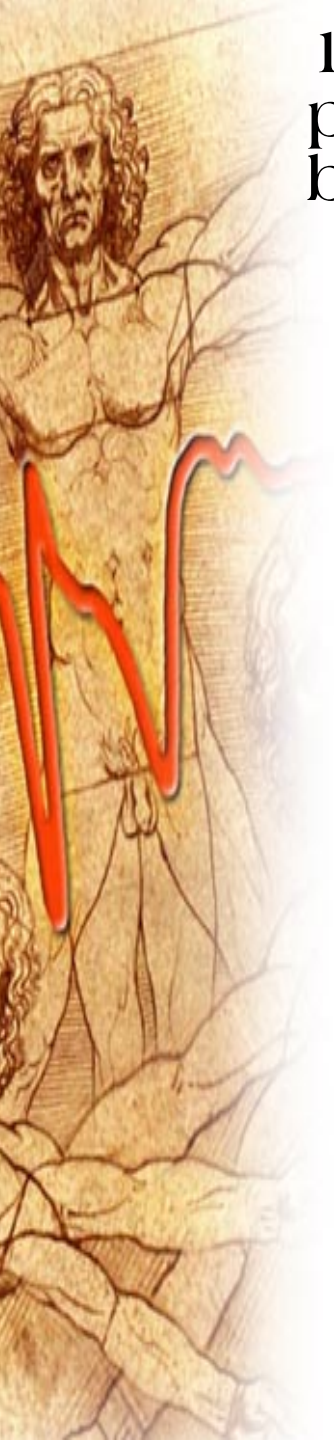
- DECT system (and others) of cordless phones
- Radar from near-by airport
- Alarm system in homes
- Known medical effects: disturbs all known intrinsic rhythms (EEG, heart rate variability, breathing pattern, 24 hr meridian activity, bowel movements, detoxification, etc), blocks blood-brain and gut barrier (leaky gut syndrome) in stuck-open position, synergistic effect with other fields, increases mold growth in homes



1. EMF: Microwave

- Cell phone radiation from base station (affects blood brain barrier in 1.6 mile radius)
- Wireless internet, WLAN, etc.
- Blue Tooth technology
- Some home alarm systems

- Known medical effects: increases cancer rate 3 fold in 10 years after cell phone radiation is brought into a community - after a 5 year incubation period. Severe EEG, HRV and EKG changes, delayed and disturbed brain development in infants, decreased melatonin and hormone production, open blood brain barrier with increased toxicity, affects endothelial cells in gut mucosa and endothelium (dysfunctional), responsible for illness and death of trees,



1. EMF: Electro smog reduces melatonin production in the pineal gland. Why is this bad?

- 1.Melatonin induces sleep. We only heal and detoxify in deep non-rem sleep. Without melatonin no regeneration and no detoxification

- 2. Melatonin is the most effective and potent neuroprotective chemical in the CNS and prevents damage from mercury, lead, aluminum, chemicals, mycotoxins, viruses, cigarette smoke, bacterial and parasitic endo-and exotoxins (Lyme, clostridia, ascaris) outgasing of carpets and new car plastics, etc.

- *Sener, G.et al: "Melatonin protects against mercury induced oxidative tissue damage". Basic and Clinical Pharmacology&Toxicology Vol 93, Dec 2003, pp 290-296*